

**Remarks**

Claims 1-16 are pending in the application.

Claims 1-4, 6-9 and 11-16 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 6,370,112 (Voelker) in view of US 5,809,011 (Almay).

Claims 5 and 10 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of Voelker in view of Almay and further in view of US 6,535,489B1 (Merchant).

Claims 1, 6 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Boduch US006667954B1 (Boduch).

Claims 1-4, 6-9 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Almay in view of US 6,028,861 (Soirinsuo).

Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Almay in view of Soirinsuo as applied to claims 1 and 6 above, and further in view of Merchant.

Each of the various rejections and objections are overcome by amendments that are made to the specification, drawing, and/or claims, as well as, or in the alternative, by various arguments that are presented.

Any amendments to any claim for reasons other than as expressly recited herein as being for the purpose of distinguishing such claim from known prior art are not being made with an intent to change in any way the literal scope of such claims or the range of equivalents for such claims. They are being made simply to present language that is better in conformance with the form requirements of Title 35 of the United States Code or is simply clearer and easier to understand than the originally presented language. Any amendments to any claim expressly made in order to distinguish such claim from known prior art are being made only with an intent to change the literal scope of such claim in the most minimal way, i.e., to just avoid the prior art in a way that leaves the claim novel and not obvious in view of the cited prior art, and no equivalent of any subject matter remaining in the claim is intended to be surrendered.

Also, since a dependent claim inherently includes the recitations of the claim or chain of claims from which it depends, it is submitted that the scope and content of any dependent claims that have been herein rewritten in independent form is exactly the same as the scope and content of those claims prior to having been rewritten in independent form. That is, although by convention such rewritten claims are labeled herein as having been "amended," it is submitted that only the format, and not the content, of these claims has been changed. This is true whether a dependent claim has been rewritten to expressly include the limitations of those claims on which it formerly depended or whether an independent claim has been rewritten to include the limitations of claims that previously depended from it. Thus, by such rewriting no equivalent of any subject matter of the original dependent claim is intended to be surrendered. If the Examiner is of a different view, he is respectfully requested to so indicate.

#### **Double Patenting Rejections**

Claims 1-4, 6-9 and 11-16 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of Voelker in view of Almay.

Claims 5 and 10 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of Voelker in view of Almay and further in view of Merchant.

The Applicants thank the Examiner for deferring the double patenting rejection until all other grounds of rejection are overcome.

#### **Rejection Under 35 U.S.C. 102(e)**

Claims 1, 6 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Boduch US006667954B1 (Boduch). The rejection is traversed.

Anticipation requires the presence in a single prior art disclosure of each and every element of the claimed invention, arranged as in the claim. The Boduch reference fails to disclose each and every element of the claimed invention, as arranged in independent claim 1.

Specifically, the Boduch reference fails to teach or suggest at least the claim element “wherein in response to a data packet being received out of order at a first of the plurality input ports, data packets received at the first input port are discarded for a period of time while data packets received at the other input ports are processed, such that the data packets forwarded on the output are in correct packet order,” as recited in independent claim 1.

The Boduch reference is directed toward “selecting the better of two or more copies of a cell in a cell-oriented redundant switching system connected to an external communications network” (see Boduch, Abstract). Selecting “the better of two or more copies of cells” is not equivalent to the claimed “discarding,” wherein cells are irrevocably prevented from being forwarded, as exemplified among other places in the Applicants’ Fig. 10, wherein cells 1, 3 and 4 are forwarded, and cell 2 is “discarded” with Destination B not receiving a “copy” of a cell. Moreover, Boduch discloses “if any cells required to construct the outgoing datastream are missing...ASIC 110 inserts idle filler bytes...to compensate for the missing data” (col. 4, lines 33-36). Hence, Boduch does not even allow less of a number of bits to be forwarded than were transmitted, in contrast to less bits than were transmitted clearly being forwarded resultant from the claimed “discarding.”

In addition to Boduch failing to teach “discarding,” the reference also fails to teach or suggest the claimed “data packets forwarded on the output are in the correct packet order.” The Office Action suggests this claim element is taught by Boduch col. 10, line 32 to col. 11, line 6 - “packets/cells transmitted from the cell selector 206 at the output/transmit interface of ASIC 100 is in sequential order” (Examiner’s paraphrasing). The applicants respectfully disagree.

By “sequential order,” Boduch is not referring to packets being in the same order as they were originally transmitted. Rather, Boduch is referring to “each cell has a multi-bit sequence number which is attached at ingress port module 104 and which is identical for both copies of the same cell, and increasing for each subsequent cell entering the best cell copy selection ASIC 110” (col. 4, lines 18-22, emphasis added). The sequence number is arbitrarily assigned to all cells at the receiving end (ASIC 110) of the system, based on the incremental order in which they arrive, not with respect to the order in

which they were transmitted. The cells could still arrive out of order at ASIC 110, be assigned a sequence number, and be forwarded out of order. Hence, Boduch does not teach or suggest "in response to a data packet being received out of order at a first of the plurality input ports, data packets received at the first input port are discarded for a period of time while data packets received at the other input ports are processed, such that the data packets forwarded on the output are in correct packet order," as recited in independent claim 1, and as such fails to disclose each and every element of the claimed invention, as arranged in Applicants' independent claim 1.

As such, independent claim 1 is not anticipated by Boduch and is patentable under 35 U.S.C. 102. Independent claims 6 and 11 recite relevant limitations similar to those recited in independent claim 1 and, as such, and at least for the same reasons as discussed above, these independent claims also are not anticipated by Boduch and are patentable under 35 U.S.C. 102.

In view of the above, Applicants respectfully request the rejection of claims 1, 6 and 11 be withdrawn.

#### **Rejection Under 35 U.S.C. 103(a)**

Claims 1-4, 6-9 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Almay in view of Soirinsuo. The rejection is traversed.

According to MPEP §2143, to establish a prima facie case of obviousness under §103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicants respectfully maintain that the Office Action failed to establish a *prima facie* case of obviousness, because the combination of Almay and Soirinsuo fails to teach or suggest all the claim elements.

The invention is directed toward receiving packets simultaneously from at least two different paths, and discarding packets at their port of arrival if they are detected to be out of order. Specifically, the invention claims “in response to a commonly sourced data packet being received out of order at a first of the plurality of input ports, commonly sourced data packets received at the first input port are discarded for a period of time while commonly sourced data packets received at the other input port are processed.” To the contrary, Soirinsuo never allows data at any more than one input port to be considered, or “processed,” at any given time. Soirinsuo instead teaches an *all-or-nothing* switching process, wherein *all* data transmissions are permitted to be forwarded (with no data being “discarded”) from a particular port, while *no* data is permitted to be forwarded from the other(s). Soirinsuo succinctly explains this with “for an egress switch-over, the ATM switch will send out all cells coming from the ‘new’ connection, and discard all cells received on the ‘old’ channel” (col. 10, lines 25-27, emphasis added). The Soirinsuo switchover is completely discrete, where after no cells arriving at any input port that has not been explicitly switched to are even considered, be they out-of-order or not.

Even though Soirinsuo mentions the word “discard,” the Applicants respectfully maintain that the art distinctly teaches away from “discard,” as specifically claimed. Soirinsuo does not mention any provisions for actually *detecting* if packets or cells are being received out of order or not, so for one, it is not even possible for Soirinsuo to specifically respond “to a commonly sourced data packet being received out of order” by any means. Soirinsuo merely entails waiting until a “frame completed” state is received before performing a switchover (Figure 10), and then performing the switchover *immediately* after that occurs. Soirinsuo Figure 9, and column 9, lines 51-54 explains “the integrity of AAL-5 packets 901 can be maintained by timing the switch-over so that switchover 902 happens right after a cell 904 having a last cell indication set, e.g., the AUU or user signaling bit.” As is shown, all processes in Soirinsuo are clearly directed toward *completely* receiving all cells on a singular elected path, and not *discarding* any of them once cell reception has begun. To do so would be contrary to the entire premise of Soirinsuo. Thus, in addition to not teaching “discard” as represented by the claims,

the Applicants respectfully submit that Soirinsuo in fact teaches away from the claim element in the manner it is presented in the claims as well.

Therefore, Almay in view of Soirinsuo does not satisfy the requirements for a 35 U.S.C. 103(a) rejection according to MPEP §2143. The arguments of the Office Action against independent claims 6 and 11 are the same as those against independent claim 1, so the same response in defense of claim 1 from above also applies to claims 6 and 11, and need not be repeated.

Since all of the dependent claims that depend from the independent claims include all the limitations of the respective independent claim from which they ultimately depend, each such dependent claim is also allowable over Almay in view of Soirinsuo under 35 U.S.C. 103(a).

In view of the above, Applicants respectfully request the rejection of claims 1-4, 6-9 and 11-16 be withdrawn.

#### **Claims 5 and 10**

Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Almay in view of Soirinsuo as applied to claims 1 and 6 above, and further in view of Merchant. The rejection is traversed.

Each ground of rejection applies only to dependent claims, and each is predicated on the validity of the rejection under 35 U.S.C. 103 given Almay in view of Soirinsuo as applied to claims 1 and 6 above, and further in view of Merchant. Since the rejection under 35 U.S.C. 103 given Almay in view of Soirinsuo has been overcome, as described hereinabove, and there is no argument put forth by the Office Action that Merchant supplies that which is missing from Almay in view of Soirinsuo to render the independent claims obvious, these grounds of rejection cannot be maintained.

In view of the above, Applicants respectfully request the rejection of claims 5 and 10 be withdrawn.


**Conclusion**

It is respectfully submitted that the Office Action's rejections have been overcome and that this application is now in condition for allowance. Reconsideration and allowance are, therefore, respectfully solicited.

If, however, the Examiner still believes that there are unresolved issues, the Examiner is invited to call Eamon Wall at (732) 530-9404 so that arrangements may be made to discuss and resolve any such issues.

Respectfully submitted,

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